Results and Discussion

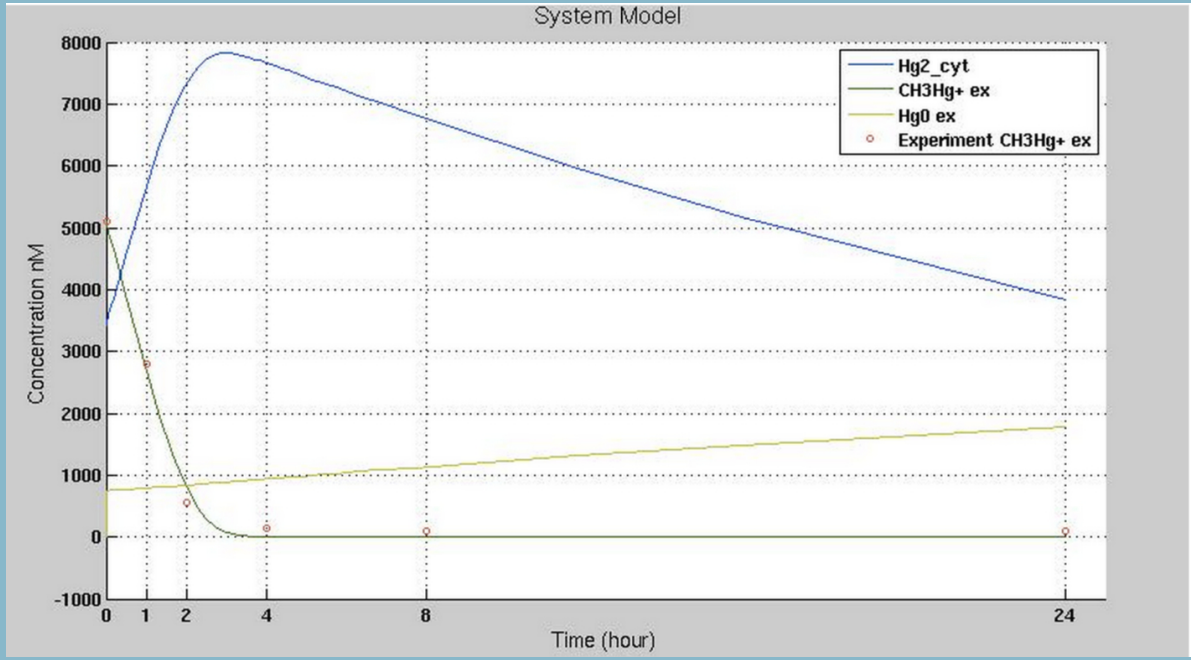

Figure 4. Experimental data is shown in red circles for the concentration of CH3Hg+ over time. The solid lines represent the biochemical model described above.

The biochemical model described above was adjusted to mimic the experimental conditions. The concentration of methylmercury is normalized by the number of cells and the estimated rate of cellular division in solution. The initial concentration of 1 mg/L of methylmercury was used both in the model and in the experiment. The model matches well with the experimental data. There is a slight difference between the model and experimental values after one hour. We have also observed slightly higher extracellular methylmercury concentration than predicted by the model.

Another contributor to the difference between the model and experimental values could be the diffusion rate. The diffusion rates are extracted from the model done by Maria and there is a difference between methylmercury and ionic mercury diffusion rates.